

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

### Introduction

This document contains instructions for completing the Radiological Incident Report, Form 1553, and the Radiological Incident Report Supplemental Page, Form 1554. These instructions and the forms accompany Laboratory Procedure LP107-01.0, "Notification and Reporting of Radiological Incidents." These instructions must be used to fill out the forms.

### Block A: Information about the incident

Complete Block A as described below.

Step	Action
1	Call your section office for an incident identification (ID) number and enter it in the space. For incidents that occur outside normal working hours, obtain an ID number the next regular working day.
2	Leave the space for the occurrence report number blank. This number will be entered later.
3	Enter the names of the sources or radionuclides involved.
4	Enter the location where the incident took place.
5	Enter the date.
6	<p>Describe the incident, including the following information:</p> <ul style="list-style-type: none"><li>• who was involved</li><li>• what happened</li><li>• where it happened</li><li>• when it happened</li><li>• how it happened</li><li>• immediate actions.</li></ul> <p>If you need more room, attach an extra sheet, and check the box indicating that you have attached a continuation sheet. Mark the sheet with the incident ID number and date.</p> <p><i>Note: Do not enter classified information on the form.</i></p>

*Note: For airborne radioactivity, area contamination, or other incidents not involving personnel, skip to Blocks F, G, and H.*

### Block B: Information about the individual

Enter the name, Z number, and name of organization or number of group for the first person to be reported for the incident. Blocks B through E on Form 1553 apply to this same person.

*Note: If more than one person is involved, complete supplemental pages, using the instructions for Blocks B through E.*

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

### General instructions for Blocks C—H

Each of blocks C through G deals with a category of incident. Fill in the blanks for each category that meets the incident criteria. One event may be reported in several categories as long as it meets the criteria for each category. Use Block H to report other events, such as procedural violations, that indicate the need for improvements in radiological control but that do not fit into any of the categories in Blocks C through G.

### Block C: External radiation exposure

Follow the steps below if the person to be reported on exceeded the LANL or facility administrative limit for external radiation exposure.

*Note: Enter the results that are available and submit the form to the section office as soon as it is determined that an event meets the incident criteria. Do not wait for final dosimetry or other results. When section office personnel receive final results, they will attach the reports, modify the form if necessary, and inform you.*

Step	Action
1	Circle the kind of radiation that was involved.
2	Enter the LANL or facility administrative limit that was exceeded (for example, the LANL administrative limit is 2000 mrem per year).
3	Check the box next to the applicable dosimetry result.
4	Enter the applicable results (in mrem) in the spaces given. For supplemental dosimeter results, also enter the type of dosimeter in the space provided.
5	If a dose has been assigned that exceeds the LANL or administrative limit, check the box next to "Assigned dose" and enter the following: <ul style="list-style-type: none"><li>• type</li><li>• dose</li><li>• period of time covered by the dose.</li></ul>

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

### Block D: Possible internal intake of radioactive material

Block D lists indicators of possible internal contamination, such as nasal smears or facial contamination. Follow the instructions below if the person being reported on exceeded any of these indicators. Check the box next to each indicator that applies. Then fill in the blanks as follows:

Indicator	Action
Nasal smear	Enter results for each nostril for all nasal smears taken. Nasal smears below the incident criteria will not be included on the incident summary reports.
Facial contamination	Enter results that exceed the detectable level (using currently available portable survey instrumentation), or enter NDA on the top line for measurements of <i>no detectable activity</i> .
Wound count	Enter positive wound count results next to the radionuclide reported or NDA on the top line.

### Block E: Personal/ company clothing, skin, and protective clothing contamination

Follow the instructions below if contamination measurements for the person being reported on exceeded the criteria below.

*Note: Readings for beta-gamma contamination in mR/hour are taken at the surface using an open window, if one is provided.*

If . . .	Was measured on . . .	Then . . .
Any detectable contamination	personal/company clothing	Enter the measured values in the appropriate columns in the table on the form.
Any detectable contamination	skin	
Contamination greater than <ul style="list-style-type: none"><li>• 1000 dpm/100 cm<sup>2</sup> alpha</li><li>• 5000 dpm/100 cm<sup>2</sup> beta-gamma</li><li>• 0.25 mR/hour beta-gamma</li></ul>	protective clothing	

*Note: Protective clothing contamination is not considered an incident when it is anticipated as a result of specially controlled activities such as glove box window changeouts, target changeouts, and maintenance operations such as "hot jobs" or when it is due to residual contamination allowed on laundered items.*

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

### Block F: Airborne radioactivity

Follow the instructions below for airborne radioactivity.

Step	Action	
1	For the first item in the block, do the following:	
	<b>If . . .</b>	<b>Then . . .</b>
	A continuous air monitor (CAM) alarm is determined to be <i>false</i>	Check the appropriate box.
	A CAM alarm is determined to be <i>true</i>	Check the appropriate box, enter the results in the blank indicated, and circle the correct unit.
	A single event causes more than one alarm	Report only <i>one</i> incident.
	Separate events cause more than one alarm	Submit a separate incident report for each alarm.
2	For each unanticipated fixed air sampler (FAS) result over 1 derived air concentration (DAC), enter the following: <ul style="list-style-type: none"><li>• result</li><li>• radionuclide</li><li>• International Commission on Radiological Protection (ICRP) inhalation class or chemical form that was used to determine the limit</li><li>• the area in ft<sup>2</sup> posted as an Airborne Radioactivity Area.</li></ul>	
3	For each unanticipated atmospheric release result greater than or equal to one DCG (derived concentration guide) enter the following: <ul style="list-style-type: none"><li>• total activity (μCi) and concentration (μCi/ml)</li><li>• number of DCGs</li><li>• radionuclide</li><li>• ICRP inhalation class or chemical form that was used to determine the limit.</li></ul>	

*Note: CAM alarm, FAS, and atmospheric release results are not considered incidents when they are anticipated as a result of specially controlled activities such as glove box window changeouts, target changeouts, and maintenance operations such as "hot jobs."*

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

### Block G: Area contamination

Follow the instructions below for area contamination. For each newly created or newly discovered area, do the following:

Step	Action				
1	Check the appropriate box to indicate whether the contamination was in a Controlled Area or uncontrolled area.				
2	Enter the area of the contamination in ft <sup>2</sup> in the space provided.				
3	<div>Enter the survey results as follows:<table><tr><td>For Controlled Areas</td><td>Report only levels that exceeded Table 2-2 in the <i>LANL Radiological Control Manual</i>.</td></tr><tr><td>For uncontrolled areas</td><td>Report any detectable level.</td></tr></table><p><i>Note these special definitions as you fill in the blanks:</i></p><p><b>Direct radiation survey</b>—measuring the contaminated surface with a hand-held instrument to detect fixed plus removable contamination.</p><p><b>Smear survey</b>—testing for the amount of removable contamination.</p></div>	For Controlled Areas	Report only levels that exceeded Table 2-2 in the <i>LANL Radiological Control Manual</i> .	For uncontrolled areas	Report any detectable level.
For Controlled Areas	Report only levels that exceeded Table 2-2 in the <i>LANL Radiological Control Manual</i> .				
For uncontrolled areas	Report any detectable level.				

*Note: Contamination in a Controlled Area is not considered an incident when it is anticipated as a result of specially controlled activities such as glove box window changeouts, target changeouts, and maintenance operations such as "hot jobs."*

# Completing the Radiological Incident Report

## Attachment 2

LP107-01.0, "Notification and Reporting of Radiological Incidents"  
(Instructions to accompany Forms 1553 and 1554)

---

**Block H: Other** This block should be used only when the event in question did not create an incident meeting any of the above criteria.

Check off on the list and/or write in any other event or condition that indicates the need for improvement in the radiological control program. Some of these items can also be considered as incident causes for categories in Blocks C through G. If this is the case, they should be identified as such in Block I and are not to be entered in Block H.

---

**Block I:  
Preliminary  
incident causes**

In this block, indicate the preliminary incident cause(s) determined by your investigation. Write the primary cause in the space provided. Then check all other causes that apply, whether human- or equipment-related.

For equipment-related causes with blank spaces after them, enter the numerical designator (such as the serial number) for the particular item(s) you've checked.

---

**Block J:  
Identification of  
operations**

Check the box or boxes indicating the operation(s) that was being conducted when the incident occurred.

---

**Block K:  
Supporting  
documentation**

Check the boxes indicating which supporting documents you will attach. Also indicate the number of supplemental pages attached. Then attach the documents as you indicated.

---

**RCT signature  
block**

In the blanks enter your

- name (print),
- signature,
- Z number, and
- date.

When you have finished completing the form, go to step 2 of section 7B.1 on page 11 of Laboratory procedure LP107-01.0, "Notification and Reporting of Radiological Incidents."

---